A COUNTRY THAT LOSES CONTROL OF ITS PAST LOSES CONTROL OF THE FUTURE

The Role of Architecture Heritage Maintaining Culture Identity Post Natural Disasters Kathmandu, Nepal as a case study.

How significant is architectural heritage, in maintaining a community and their cultural identity post natural disaster?

Nepals heritage is at the mercy of the Indian- Eurasian plate boundary

Nepal has a rich history that is reflected in its strong cultural identity and diversity in heritage sites. Many of the heritage buildings are still used daily by Nepalese communities and therefore play a strong role in their livelihood and culture. Nepalese heritage has always been at risk due to the impact and high frequency of natural disasters; however, it is becoming increasingly vulnerable to seismic damage as regular maintenance has been neglected, resulting in missing or rotten structural members and by using materials and technologies that are not best suited to the region.

The Indian - Eurasian subductive plate boundary parallel to Nepal's Northern boarder is responsable for the high seismicity in Nepal.

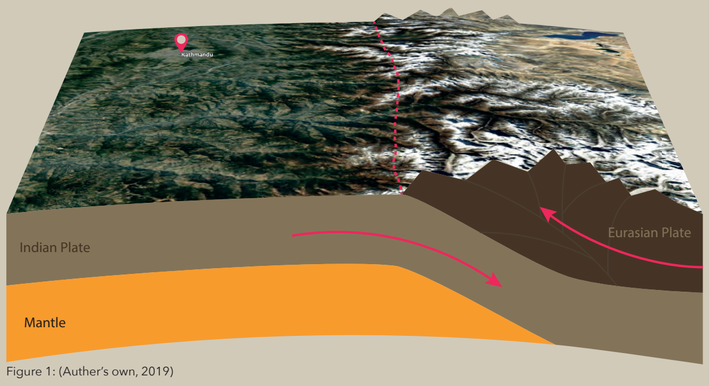
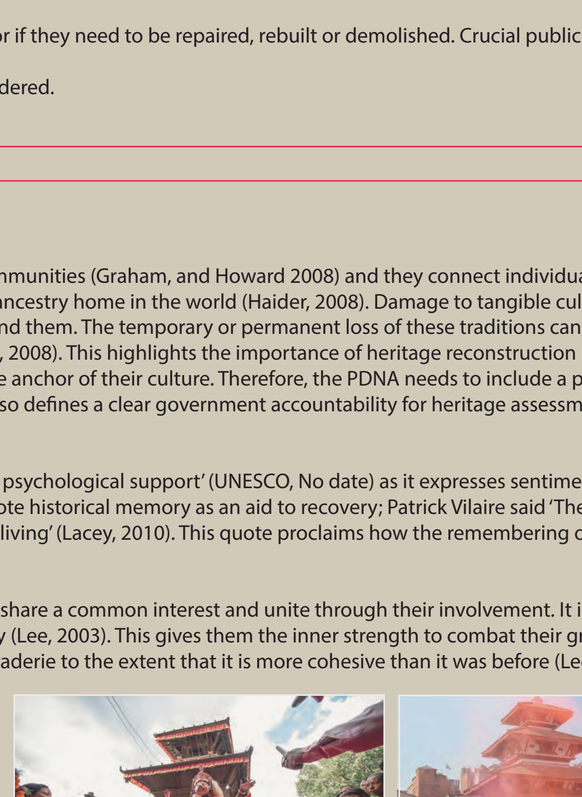


Figure 1: (Auther's own, 2019)

Map of the Kathmandu Valley and it's key heritage sites.



Stages of recovery and redevelopment after natural disaster:

- Rescue phase - exclusively focused on life saving intervention.
- Stabilisation phase - structures are examined and identified whether they are safe, or if they need to be repaired, rebuilt or demolished. Crucial public buildings such as hospitals, orphanages and schools are typically a priority
- Recovery phase - It is during this phase that heritage buildings are likely to be considered.

Traditional technologies can be more resillient to natural disasters than modern technologies

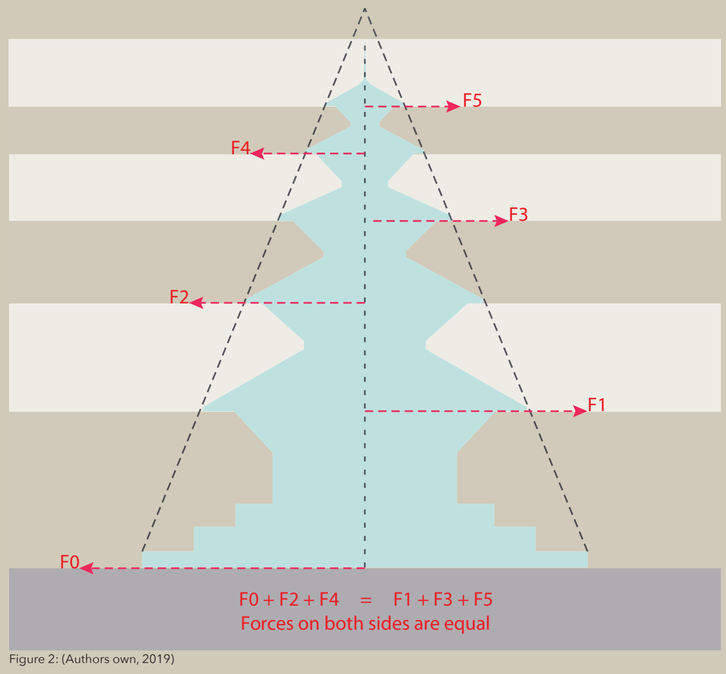


Figure 2: (Authors own, 2019)

The building technologies must be regionally specific, not only to fit in socially with culture and heritage but also because it often copes better with local vulnerabilities. Building evolution in earthquake zones has developed local technologies to withstand natural disasters. 'Traditional skills crafts and cultural practices have often contributed to disaster mitigation coping and recovery' (Haider, 2008, p.3).
Whilst some modern technologies may have advantages, particularly when it comes to speed of construction, there is evidence that suggests that they may not be as successful at withstanding natural disasters. This gives the heritage buildings educational and technological value, as they act as a model to other seismic resistant building construction in Kathmandu. Additionally, this informs us that when rebuilding after a natural disaster, it is arguably better to use the evolved and developed traditional techniques and materials and is vital that the reconstruction process engages local artisans with traditional building knowledge. This is important in both preserving the authenticity of the heritage and ensuring it withstands future natural disasters.

Nepals heritage is at the mercy of the Indian- Eurasian plate boundary

Cultural heritage buildings are utilised as a collective historical memory for entire communities (Graham, and Howard 2008) and they connect individuals to each other and their landscape through multiple generations and historic time zones, locating their ancestry home in the world (Haider, 2008). Damage to tangible cultural heritage, such as monuments can prevent traditional customs that usually take place within or around them. The temporary or permanent loss of these traditions can undermine and challenge a community's identity and the relationships between its members (Haider, 2008). This highlights the importance of heritage reconstruction in the support and regeneration of communities post natural disaster; this is part of their identity and the anchor of their culture. Therefore, the PDNA needs to include a public communication strategy which engages local views on the priorities for heritage reconstructionbut also defines a clear government accountability for heritage assessment in a post-disaster setting (Maskall 2020).

Communities typically treasure their heritage as an 'essential element of material and psychological support' (UNESCO, No date) as it expresses sentiments of identity, dignity and empowerment (UNESCO, No date). Reconstruction can restore and promote historical memory as an aid to recovery; Patrick Vilaire said 'The dead are dead, we know that. But if you don't have the memory of the past, the rest of us can't continue living' (Lacey, 2010). This quote proclaims how the remembering of the past is not important to the deceased, but it is essential to the living.

The process of the reconstruction can also help re-establish the communities as they share a common interest and unite through their involvement. It is common after most large-scale disasters, for those affected to demonstrate a rapid, firm sense of solidarity (Lee, 2003). This gives them the inner strength to combat their grief and adversities ahead of them. The disaster has the power to catalyse a renewal of community camaraderie to the extent that it is more cohesive than it was before (Lee, 2003).

Figure 3: (Weng photography, No date)

Figure 4: (Armangue, 2015)

Figure 5: (Shrestha, 2019)

Figure 6: (Travel India blog, 2018)

Priorities after an earthquake

It is undisputed that the upmost priority after a natural disaster needs to be the saftey of the people. However, it is also important that their is early engament of local heritage site interests in shaping the post-disaster needs assesment. Actively using media to engage public and specialist opinon could be used as a strategy for government, private sector and aid agencies to pursue this purpose. It is typical for buildings such as schools and hospitals to be prioritised during the stabilisation and recovery phases, however they often require different specialist teams to assess and reconstruct them, therefore can be worked on in unison. It is important that local communities are given a voice when determining priorities and the relative importance of heritage sites. In Nepal, community opinions were often ignored, with the government prioritising the buildings that have the greatest tourist interest. Where tourism forms such a significant share of the nation's income, protecting and restoring heritage can also be the foundations of securing the future economic prospects of the country. Furthermore, restoring heritage places of communal gathering may catalyse the unification and motivation of affected members of the community to regroup and rebuild their livelihoods and continue to celebrate their customary heritage.

Kasthamandap

Figure 7: (Mountain Amantes, No date)

Figure 8: (Manandhar, 2015)

Figure 9: (Everest Designs, No date)

Building recovary can endanger heritage

Post-earthquake archaeological investigations from Durham University express that hasty attempts to rebuild monuments could put them at great risk for additional damage. It is common that in the rush to rebuild, only superficial building and damage analysis of the monument is undertaken. Subterranean structural remains are often buried beneath the monument and it is imperative to examine and perform a series of rescue excavations in order to survey the stability of the foundations and resolve the reason for its collapse after the Gorkha earthquake, despite it surviving multiple preceding earthquakes. Some key structural architectural elements such as 'interlocking tendons on some wooden pillars'. Regular maintenance to heritage would have cost much less than its reconstruction after the disaster, not to mention the much greater cost of human lives that were lost due to the crumbling buildings (Coningham et al,. 2016).
Despite this, like most monuments in the Hanuman Dhoka area, Kasthamandap's foundations were left completely intact after the Gorkha earthquake and provide no evidence of ever being affected by any seismic activity. This suggests that the long established, traditional foundations of mud mortar and brick provide strong and resilient groundwork. In contrast modern retrofits using materials such as concrete, have reportedly performed poorly.
It has been observed that many of these monuments collapses could have been preventable had they had proper and regular maintenance. This can be seen in Kasthamandap, which was missing.

Conclusion

- Preparation and planning for the next disaster should form the final phase of post disaster strategies. Part of this planning should incorporate educating communities of the true value of such structures in order to galvanise a sense of ownership and promote the communal value of such artefacts, thus reduce such harmful acts.
- Consideration of the priority needs for heritage reconstruction is vital during post-disaster needs assessment excersises, not only for the protection of artefacts and in the restoration of buildings but also in restoring cohesion within communities. Heritage can restore and promote historical memory as an aid to recovery; it acts as a collective memory, an 'anchor of culture'. The way this is done is important; not only in protecting the authenticity of heritage but also in galvanising unity within the communities that have been affected. Heritage is vital to keeping traditional skills alive and therefore maintaining cultural identity. The process of the reconstruction can also help re-establish the communities as they share a common interest and unite through their involvment.
- Architectural heritage is an integral part of the cultural identity and provides both material and psychological support for communities after a disaster. This highlights the importance of heritage reconstruction in the support and regeneration of communities, engaging with them early to ensure their needs are being addressed.

Figures:
1. Author's own. (2019) Indian plate subducting bellow Eurasian plate.
2. Author's own. (2019) Pagoda seismic resistance diagram.
3. Weng photography (No date) Offerings at Bhairabnath Temple, Bhaktapur, Nepal. Available at: https://weng.zenfolio.com/bhaktapur/h119D1F37#h119d1f37 (Accessed: 15 January 2020)
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